AMENDMENTS TO THE CLAIMS

1. (currently amended) A polymerization process comprising contacting a catalyst system, a diluent comprising one or more hydrofluorocarbon(s) (HFC's), and one or more monomer(s) to form a single phase polymerization medium, wherein the polymerization medium is evaporated during the polymerization and the polymerization process is a cationic polymerization process.

2. (original) The polymerization process of claim 1, wherein the contacting occurs in a boiling pool reactor system.

3. (original) The polymerization process of claim 2, wherein the boiling pool reactor system comprises a plug flow extruder reactor or a stirred tank reactor.

4. (original) The polymerization process of claim 3, wherein the plug flow extruder reactor comprises a plurality injection zones for the one or more monomer(s).

5. (original) The polymerization process of claim 3 or 4, wherein the plug flow extruder reactor and the stirred tank reactor comprise a plurality of injection zones for the catalyst system.

6. (original) The polymerization process of claim 5, wherein the catalyst system comprises one or more Lewis acid(s) and one or more initiator(s), each being fed separately or together through the plurality of injection zones.

7. (previously presented) The polymerization process of claim 3, wherein the plug flow extruder reactor comprises a twin screw extruder.

8. (original) The polymerization process of claim 3, wherein the stirred tank reactor comprises a discharge screw.

9. (original) The polymerization process of claim 8, wherein the polymerization medium produces polymer particles and the stirred tank reactor comprises a stirrer that skims the polymer particles and directs the polymer particles to a reactor outlet.

10. (original) The polymerization process of claim 3, wherein the stirred tank reactor comprises a funnel.

11. (original) The polymerization process of claim 10, wherein the funnel is positioned near or below the surface of the liquid phase of the polymerization medium.

12. (original) The polymerization process of claim 10 or 11, wherein the stirred tank reactor comprises one or more axial flow impeller(s), one or more radial flow impeller(s), or combinations thereof.

13. (original) The polymerization process of claim 3, wherein the stirred tank reactor is absent a mechanical stirrer.

14. (previously presented) The polymerization process of claim 1, wherein the evaporated polymerization medium is collected, compressed, condensed, and returned to the polymerization medium.

15. (previously presented) The polymerization process of claim 1, wherein the polymerization process further comprises the steps of (a) cooling the polymerization medium; (b) supplying the cooled polymerization medium to a reactor; (c) removing polymer at the reactor outlet.

16. (currently amended) The polymerization process of claim 1, wherein the one or more monomer(s) comprise an isoolefin~~, preferably isobutylene,~~ and a multiolefin~~, preferably a conjugated diene, more preferably isoprene~~.

17. (currently amended) The polymerization process of claim 1, where the one or more monomer(s) comprise an isoolefin~~, preferably isobutylene,~~ and an alkylstyrene, ~~preferably methylstyrene, more preferably *para* methylstyrene~~.

18. (previously presented) The polymerization process of claim 1, wherein one or more hydrofluorocarbon(s) is represented by the formula: $C_xH_yF_z$ wherein x is an integer from 1 to 40 and y and z are integers of one or more.

19. (original) The polymerization process of claim 18, wherein x is from 1 to 10.

20. (original) The polymerization process of claim 18, wherein x is from 1 to 6.

21. (original) The polymerization process of claim 18, wherein x is from 1 to 3.

22. (previously presented) The polymerization process of claim 1, wherein the one or more hydrofluorocarbon(s) is independently selected from the group consisting of fluoromethane; difluoromethane; trifluoromethane; fluoroethane; 1,1-difluoroethane; 1,2-difluoroethane; 1,1,1-trifluoroethane; 1,1,2-trifluoroethane; 1,1,1,2-tetrafluoroethane; 1,1,2,2-tetrafluoroethane; 1,1,1,2,2-pentafluoroethane; 1-fluoropropane; 2-fluoropropane; 1,1-difluoropropane; 1,2-difluoropropane; 1,3-difluoropropane; 2,2-difluoropropane; 1,1,1-trifluoropropane; 1,1,2-trifluoropropane; 1,1,3-trifluoropropane; 1,2,2-trifluoropropane; 1,2,3-trifluoropropane; 1,1,1,2-tetrafluoropropane; 1,1,1,3-tetrafluoropropane; 1,1,2,2-tetrafluoropropane; 1,1,2,3-tetrafluoropropane; 1,1,3,3-tetrafluoropropane; 1,2,2,3-tetrafluoropropane; 1,1,1,2,2-pentafluoropropane; 1,1,1,2,3-pentafluoropropane; 1,1,1,3,3-pentafluoropropane; 1,1,2,2,3-pentafluoropropane; 1,1,2,3,3-pentafluoropropane; 1,1,1,2,2,3-hexafluoropropane; 1,1,1,2,3,3-hexafluoropropane; 1,1,1,3,3,3-hexafluoropropane; 1,1,1,2,2,3,3-heptafluoropropane; 1,1,1,2,3,3,3-heptafluoropropane; 1-fluorobutane; 2-fluorobutane; 1,1-difluorobutane; 1,2-difluorobutane; 1,3-difluorobutane; 1,4-difluorobutane; 2,2-difluorobutane; 2,3-difluorobutane; 1,1,1-trifluorobutane; 1,1,2-trifluorobutane; 1,1,3-trifluorobutane; 1,1,4-trifluorobutane; 1,2,2-trifluorobutane; 1,2,3-trifluorobutane; 1,3,3-trifluorobutane; 2,2,3-trifluorobutane; 1,1,1,2-tetrafluorobutane; 1,1,1,3-tetrafluorobutane; 1,1,1,4-tetrafluorobutane; 1,1,2,2-tetrafluorobutane; 1,1,2,3-tetrafluorobutane; 1,1,2,4-tetrafluorobutane; 1,1,3,3-tetrafluorobutane; 1,1,3,4-tetrafluorobutane; 1,1,4,4-tetrafluorobutane; 1,2,2,3-tetrafluorobutane; 1,2,2,4-tetrafluorobutane; 1,2,3,3-tetrafluorobutane; 1,2,3,4-

tetrafluorobutane; 2,2,3,3-tetrafluorobutane; 1,1,1,2,2-pentafluorobutane; 1,1,1,2,3-pentafluorobutane; 1,1,1,2,4-pentafluorobutane; 1,1,1,3,3-pentafluorobutane; 1,1,1,3,4-pentafluorobutane; 1,1,1,4,4-pentafluorobutane; 1,1,2,2,3-pentafluorobutane; 1,1,2,2,4-pentafluorobutane; 1,1,2,3,3-pentafluorobutane; 1,1,2,4,4-pentafluorobutane; 1,1,3,3,4-pentafluorobutane; 1,2,2,3,3-pentafluorobutane; 1,2,2,3,4-pentafluorobutane; 1,1,1,2,2,3-hexafluorobutane; 1,1,1,2,2,4-hexafluorobutane; 1,1,1,2,3,3-hexafluorobutane, 1,1,1,2,3,4-hexafluorobutane; 1,1,1,2,4,4-hexafluorobutane; 1,1,1,3,3,4-hexafluorobutane; 1,1,1,3,4,4-hexafluorobutane; 1,1,1,4,4,4-hexafluorobutane; 1,1,2,2,3,3-hexafluorobutane; 1,1,2,2,3,4-hexafluorobutane; 1,1,2,2,4,4-hexafluorobutane; 1,1,2,3,3,4-hexafluorobutane; 1,1,2,3,4,4-hexafluorobutane; 1,2,2,3,3,4-hexafluorobutane; 1,1,1,2,2,3,3-heptafluorobutane; 1,1,1,2,2,4,4-heptafluorobutane; 1,1,1,2,2,3,4-heptafluorobutane; 1,1,1,2,3,3,4-heptafluorobutane; 1,1,1,2,3,4,4-heptafluorobutane; 1,1,1,2,4,4,4-heptafluorobutane; 1,1,1,3,3,4,4-heptafluorobutane; 1,1,1,2,2,3,3,4-octafluorobutane; 1,1,1,2,2,3,4,4-octafluorobutane; 1,1,1,2,3,3,4,4-octafluorobutane; 1,1,1,2,2,4,4,4-octafluorobutane; 1,1,1,2,3,4,4,4-octafluorobutane; 1,1,1,2,2,3,3,4,4-nonafluorobutane; 1,1,1,2,2,3,4,4,4-nonafluorobutane; 1-fluoro-2-methylpropane; 1,1-difluoro-2-methylpropane; 1,3-difluoro-2-methylpropane; 1,1,1-trifluoro-2-methylpropane; 1,1,3-trifluoro-2-methylpropane; 1,3-difluoro-2-(fluoromethyl)propane; 1,1,1,3-tetrafluoro-2-methylpropane; 1,1,3,3-tetrafluoro-2-methylpropane; 1,1,3-trifluoro-2-(fluoromethyl)propane; 1,1,1,3,3-pentafluoro-2-methylpropane; 1,1,3,3-tetrafluoro-2-(fluoromethyl)propane; 1,1,1,3-tetrafluoro-2-(fluoromethyl)propane; fluorocyclobutane; 1,1-difluorocyclobutane; 1,2-difluorocyclobutane; 1,3-difluorocyclobutane; 1,1,2-trifluorocyclobutane; 1,1,3-trifluorocyclobutane; 1,2,3-trifluorocyclobutane; 1,1,2,2-tetrafluorocyclobutane; 1,1,3,3-tetrafluorocyclobutane; 1,1,2,2,3-pentafluorocyclobutane; 1,1,2,3,3-pentafluorocyclobutane; 1,1,2,2,3,3-hexafluorocyclobutane; 1,1,2,2,3,4-hexafluorocyclobutane; 1,1,2,3,3,4-hexafluorocyclobutane; 1,1,2,2,3,3,4-heptafluorocyclobutane and mixtures thereof.

23. (previously presented) The polymerization process of claim 1, wherein the one or more hydrofluorocarbon(s) is independently selected from monofluoromethane, difluoromethane, trifluoromethane, monofluoroethane, 1,1-difluoroethane, 1,1,1-

trifluoroethane, 1,1,1,2-tetrafluoroethane, 1,1,1,2,2, pentafluoroethane, and mixtures thereof.

24. (previously presented) The polymerization process of claim 1, wherein the diluent comprises from 15 to 100 volume % HFC based upon the total volume of the diluent.

25. (previously presented) The polymerization process of claim 1, wherein the diluent comprises from 20 to 100 volume % HFC based upon the total volume of the diluent.

26. (previously presented) The polymerization process of claim 1, wherein the diluent comprises from 25 to 100 volume % HFC based upon the total volume of the diluent.

27. (previously presented) The polymerization process of claim 1, wherein the diluent further comprises a hydrocarbon, a non-reactive olefin, and/or an inert gas.

28. (original) The polymerization process of claim 27, wherein the hydrocarbon is a halogenated hydrocarbon other than an HFC.

29. (original) The polymerization process of claim 28, wherein the halogenated hydrocarbon is methyl chloride.

30. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula MX_4;
wherein M is a Group 4, 5, or 14 metal; and
each X is a halogen.

31. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula MR_nX_{4-n};
wherein M is Group 4, 5, or 14 metal;
each R is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 0 to 4; and
each X is a halogen.

32. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula $M(RO)_nR'_mX_{4-(m+n)}$;
wherein M is Group 4, 5, or 14 metal;
each RO is a monovalent C_1 to C_{30} hydrocarboxy radical independently selected from the group consisting of an alkoxy, aryloxy, arylalkoxy, alkylaryloxy radicals;
each R' is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 0 to 4;
m is an integer from 0 to 4, wherein the sum of *n* and *m* is not more than 4; and
each X is a halogen.

33. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula $M(RC{=}OO)_nR'_mX_{4-(m+n)}$;
wherein M is Group 4, 5, or 14 metal;
each RC=OO is a monovalent C_2 to C_{30} hydrocarbacyl radical independently selected from the group consisting of an alkacyloxy, arylacyloxy, arylalkylacyloxy, alkylarylacyloxy radicals;
each R' is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 0 to 4;
m is an integer from 0 to 4, wherein the sum of *n* and *m* is not more than 4; and
each X is a halogen.

34. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula MOX_3;
wherein M is a Group 5 metal; and
each X is a halogen.

35. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula MX_3;

wherein M is a Group 13 metal; and
each X is a halogen.

36. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula MR_nX_{3-n} ;
wherein M is a Group 13 metal;
each R is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 1 to 3; and
each X is a halogen.

37. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula $M(RO)_nR'_mX_{3-(m+n)}$;
wherein M is a Group 13 metal;
each RO is a monovalent C_1 to C_{30} hydrocarboxy radical independently selected from the group consisting of an alkoxy, aryloxy, arylalkoxy, alkylaryloxy radicals;
each R' is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 0 to 3;
m is an integer from 0 to 3, wherein the sum of *n* and *m* is from 1 to 3; and
each X is a halogen.

38. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula $M(RC{=}OO)_nR'_mX_{3-(m+n)}$;
wherein M is a Group 13 metal;
each RC=OO is a monovalent hydrocarbacyl radical independently selected from the group independently selected from the C_2 to C_{30} group consisting of an alkacyloxy, arylacyloxy, arylalkylacyloxy, alkylarylacyloxy radicals;
each R' is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 0 to 3;

m is a integer from 0 to 3, wherein the sum of *n* and *m* is from 1 to 3; and
each X is a halogen.

39. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula MX_y;
wherein M is a Group 15 metal;
each X is a halogen; and
y is 3, 4 or 5.

40. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula MR_nX_{y-n};
wherein M is a Group 15 metal;
each R is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 0 to 4;
y is 3, 4 or 5, wherein n is less than y; and
each X is a halogen.

41. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula $M(RO)_nR'_mX_{y-(m+n)}$;
wherein M is a Group 15 metal,
each RO is a monovalent C_1 to C_{30} hydrocarboxy radical independently selected from the group consisting of an alkoxy, aryloxy, arylalkoxy, alkylaryloxy radicals;
each R' is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;
n is an integer from 0 to 4;
m is an integer from 0 to 4;
y is 3, 4 or 5, wherein the sum of *n* and *m* is less than y; and
each X is a halogen.

42. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) represented by the formula $M(RC{=}OO)_nR'_mX_{y-(m+n)}$;

wherein M is a Group 15 metal;

each RC=OO is a monovalent C_2 to C_{30} hydrocarbacyloxy radical independently selected from the group consisting of an alkacyloxy, arylacyloxy, arylalkylacyloxy, alkylarylacyloxy radicals;

each R' is a monovalent C_1 to C_{12} hydrocarbon radical independently selected from the group consisting of an alkyl, aryl, arylalkyl, alkylaryl and cycloalkyl radicals;

n is an integer from 0 to 4;

m is an integer from 0 to 4;

y is 3, 4 or 5, wherein the sum of *n* and *m* is less than y; and

each X is a halogen.

43. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) independently selected from the group consisting of titanium tetrachloride, titanium tetrabromide, vanadium tetrachloride, tin tetrachloride, zirconium tetrachloride, titanium bromide trichloride, titanium dibromide dichloride, vanadium bromide trichloride, tin chloride trifluoride, benzyltitanium trichloride, dibenzyltitanium dichloride, benzylzirconium trichloride, dibenzylzirconium dibromide, methyltitanium trichloride, dimethyltitanium difluoride, dimethyltin dichloride, phenylvanadium trichloride, methoxytitanium trichloride, n-butoxytitanium trichloride, di(isopropoxy)titanium dichloride, phenoxytitanium tribromide, phenylmethoxyzirconium trifluoride, methyl methoxytitanium dichloride, methyl methoxytin dichloride, benzyl isopropoxyvanadium dichloride, acetoxytitanium trichloride, benzoylzirconium tribromide, benzoyloxytitanium trifluoride, isopropoyloxytin trichloride, methyl acetoxytitanium dichloride, benzyl benzoyloxyvanadium chloride, vanadium oxytrichloride, aluminum trichloride, boron trifluoride, gallium trichloride, indium trifluoride, ethylaluminum dichloride, methylaluminum dichloride, benzylaluminum dichloride, isobutylgallium dichloride, diethylaluminum chloride, dimethylaluminum chloride, ethylaluminum sesquichloride, methylaluminum sesquichloride , trimethylaluminum, triethylaluminum, methoxyaluminum dichloride,

ethoxyaluminum dichloride, 2,6-di-tert-butylphenoxyaluminum dichloride, methoxy methylaluminum chloride, 2,6-di-tert-butylphenoxy methylaluminum chloride, isopropoxygallium dichloride, phenoxy methylindium fluoride, acetoxyaluminum dichloride, benzoyloxyaluminum dibromide, benzoyloxygallium difluoride, methyl acetoxyaluminum chloride, isopropoyloxyindium trichloride, antimony hexachloride, antimony hexafluoride, arsenic pentafluoride, antimony chloride pentafluoride, arsenic trifluoride, bismuth trichloride arsenic fluoride tetrachloride, tetraphenylantimony chloride, triphenylantimony dichloride, tetrachloromethoxyantimony, dimethoxytrichloroantimony, dichloromethoxyarsine, chlorodimethoxyarsine, difluoromethoxyarsine, acetatotetrachloroantimony, (benzoato) tetrachloroantimony, and bismuth acetate chloride.

44. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more Lewis acid(s) independently selected from the group consisting of aluminum trichloride, aluminum tribromide, ethylaluminum dichloride, ethylaluminum sesquichloride, diethylaluminum chloride, methylaluminum dichloride, methylaluminum sesquichloride, dimethylaluminum chloride, boron trifluoride, and titanium tetrachloride.

45. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises a Lewis acid that is not a compound represented by formula MX_3, where M is a group 13 metal, X is a halogen.

46. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises a hydrogen halide, a carboxylic acid, a carboxylic acid halide, a sulfonic acid, an alcohol, a phenol, a polymeric halide, a tertiary alkyl halide, a tertiary aralkyl halide, a tertiary alkyl ester, a tertiary aralkyl ester, a tertiary alkyl ether, a tertiary aralkyl ether, an alkyl halide, an aryl halide, an alkylaryl halide or an arylalkylacid halide.

47. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more initiator(s) independently selected from the group

consisting of HCl, H_2O, methanol, $(CH_3)_3CCl$, $C_6H_5C(CH_3)_2Cl$, (2-Chloro-2,4,4-trimethylpentane) and 2-chloro-2-methylpropane.

48. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more initiator(s) independently selected from the group consisting of hydrogen chloride, hydrogen bromide, hydrogen iodide, acetic acid, propanoic acid, butanoic acid; cinnamic acid, benzoic acid, 1-chloroacetic acid, dichloroacetic acid, trichloroacetic acid, trifluoroacetic acid, p-chlorobenzoic acid, p-fluorobenzoic acid, acetyl chloride, acetyl bromide, cinnamyl chloride, benzoyl chloride, benzoyl bromide, trichloroacetylchloride, trifluoroacetylchloride, p-fluorobenzoylchloride, methanesulfonic acid, trifluoromethanesulfonic acid, trichloromethanesulfonic acid, p-toluenesulfonic acid, methanesulfonyl chloride, methanesulfonyl bromide, trichloromethanesulfonyl chloride, trifluoromethanesulfonyl chloride, p-toluenesulfonyl chloride, methanol, ethanol, propanol, 2-propanol, 2-methylpropan-2-ol, cyclohexanol, benzyl alcohol, phenol, 2-methylphenol, 2,6-dimethylphenol, p-chlorophenol, p-fluorophenol, 2,3,4,5,6-pentafluorophenol, and 2-hydroxynaphthalene.

49. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises one or more initiator(s) independently selected from the group consisting of 2-chloro-2,4,4-trimethylpentane; 2-bromo-2,4,4-trimethylpentane; 2-chloro-2-methylpropane; 2-bromo-2-methylpropane; 2-chloro-2,4,4,6,6-pentamethylheptane; 2-bromo-2,4,4,6,6-pentamethylheptane; 1-chloro-1-methylethylbenzene; 1-chloroadamantane; 1-chloroethylbenzene; 1, 4-bis(1-chloro-1-methylethyl) benzene; 5-tert-butyl-1,3-bis(1-chloro-1-methylethyl) benzene; 2-acetoxy-2,4,4-trimethylpentane; 2-benzoyloxy-2,4,4-trimethylpentane; 2-acetoxy-2-methylpropane; 2-benzoyloxy-2-methylpropane; 2-acetoxy-2,4,4,6,6-pentamethylheptane; 2-benzoyl-2,4,4,6,6-pentamethylheptane; 1-acetoxy-1-methylethylbenzene; 1-aceotxyadamantane; 1-benzoyloxyethylbenzene; 1,4-bis(1-acetoxy-1-methylethyl) benzene; 5-tert-butyl-1,3-bis(1-acetoxy-1-methylethyl) benzene; 2-methoxy-2,4,4-trimethylpentane; 2-isopropoxy-2,4,4-trimethylpentane; 2-methoxy-2-methylpropane; 2-benzyloxy-2-methylpropane; 2-methoxy-2,4,4,6,6-pentamethylheptane; 2-isopropoxy-2,4,4,6,6-pentamethylheptane; 1-methoxy-1-

methylethylbenzene; 1-methoxyadamantane; 1-methoxyethylbenzene; 1,4-bis(1-methoxy-1-methylethyl) benzene; 5-tert-butyl-1,3-bis(1-methoxy-1-methylethyl) benzene, and 1,3,5-tris(1-chloro-1-methylethyl) benzene.

50. (previously presented) The polymerization process of claim 1, wherein the catalyst system comprises a weakly-coordinating anion.

51. (previously presented) The polymerization process of claim 1, wherein the one or more initiator(s) comprise greater than 30 ppm water (based upon weight).

52. (previously presented) The polymerization process of claim 1, wherein the one or more monomer(s) is independently selected from the group consisting of olefins, alpha-olefins, disubstituted olefins, isoolefins, conjugated dienes, non-conjugated dienes, styrenics, substituted styrenics, and vinyl ethers.

53. (previously presented) The polymerization process of claim 1, wherein the one or more monomer(s) is independently selected from the group consisting of isobutylene, styrene, para-alkylstyrene, para-methylstyrene, alpha-methyl styrene, divinylbenzene, diisopropenylbenzene, isobutylene, 2-methyl-1-butene, 3-methyl-1-butene, 2-methyl-2-pentene, isoprene, butadiene, 2,3-dimethyl-1,3-butadiene, ß-pinene, myrcene, 6,6-dimethyl-fulvene, hexadiene, cyclopentadiene, methyl cyclopentadiene, piperylene, methyl vinyl ether, ethyl vinyl ether, and isobutyl vinyl ether.

54. (previously presented) The polymerization process of claim 1, wherein the one or more monomer(s) comprise at least 80 wt% isobutylene based upon the total weight of the one or more monomer(s).

55. (previously presented) The polymerization process of claim 1, wherein the polymerization temperature is from 15°C to -100°C.

56. (previously presented) The polymerization process of claim 1, wherein the polymerization temperature is from -30°C to -70°C.

57. (previously presented) The polymerization process of claim 1, wherein the polymerization temperature is from -40°C to -60°C.

58. (previously presented) The polymerization process of claim 1, wherein the polymerization medium is evaporated at pressures from 1 kPa to 400 kPa.

59. (previously presented) The polymerization process of claim 1, wherein the polymerization medium is evaporated at pressures from 10 kPa to 100 kPa.

60. (previously presented) The polymerization process of claim 1, wherein the polymerization medium is evaporated at pressures from 30 kPa to 100 kPa.

61. (cancelled)

62. (cancelled)